

## BRIDGE TEAM WORKING GROUP EXECUTIVE SUMMARY

### **Overarching Goal for Bridge Program**

#### **Background:**

There are a significant number of aged bridges on the State Highway System, including 2000 with a Sufficiency Rating less than 50, 4000 bridges with timber components, and 3400 with ten years or less of estimated remaining life. Furthermore, there are over 2,200 bridges in the inventory that are Structurally Deficient. A working group composed of Division, Bridge Management, Construction, Design, Planning and FHWA members was established to determine specific goals, progress measures and strategies to be used for the bridge replacement program.

#### **Actions:**

The working group first met in July 2007 and developed a framework for developing program goals. Consensus was achieved to base the long term goal on a reduction in the number of structurally deficient bridges while using a tiered approach. A target to reduce the number of structurally deficient bridges to 10% in 25 years was identified; the national average of 12% was noted.

Subsequently, historical data from the BMU database was used to determine future delivery needs. Using data from the past ten years, an average 173 new bridges are constructed each year (110 of these are bridge replacements) while 213 bridges become structurally deficient each year. Extrapolating these trends shows demand for replacements will continue to outpace current program delivery. In order to meet the program goal in 25 years approximately 320 bridges per year would need to be delivered.

Program selection criteria were developed that reflect safety and mobility requirements for the statewide, regional and sub-regional tiers. And, different targets for percent of structurally deficient bridges for each tier were set such that the state average would be met if each of the tier targets was met.

Last, the working group developed qualitative and quantitative progress measurements that are to be tracked with three year moving averages. These progress measurements compliment the TMT Executive Dashboard Bridge Condition Index where bridge condition is displayed as the % of bridges in good condition. (A bridge is considered to be in good condition if the Level of Service for Deck, Substructure and Superstructure are all greater than or equal to 6, on a 1 to 9 scale.) However, preservation and rehabilitation can affect condition.

The Bridge Program Goal summary sheet, including the overarching goal, progress measures, and tiered approach is outlined on the attachment. At the start of the state fiscal year, July 1, the BMU and Structure Design Unit will work jointly to update this summary.

Submitted 10/1/2008 Revised 11/17/2008

Attachment: BRIDGE PROGRAM GOAL (11/6/07)

## **BRIDGE PROGRAM GOAL**

### **Overarching Goal:**

Reduce number of Structurally Deficient (SD) bridges to 10% in 25 years.  
**Currently SD=18.3% (National=12.7%)**

### **Progress Measures:**

#### GOOD

- Significant progress (gradual elimination of deterioration backlog)
- Reducing total number of SD bridges
- 0.4% reduction per year based on 3 year moving average

#### FAIR

- Some progress (keeping pace with deterioration)
- Total number of SD bridges staying the same
- 0.2% reduction per year based on 3 year moving average

#### POOR

- No progress (deterioration exceeds delivery)
- Increasing the total number of SD bridges
- No reduction per year based on 3 year moving average

### **Accomplish through targeted, Tier approach as follows:**

#### STATEWIDE

- SD < 1% **(Currently 248 of 2534, 9.8%)**
- Target/prioritize to eliminate bridges with inadequate vertical or horizontal clearance (define in a manner that allows use of inventory database)

#### REGIONAL

- SD ≤ 5% **(Currently 258 of 1653, 15.6%)**
- Target/prioritize to eliminate posted bridges

#### SUBREGIONAL

- SD ≤ 15% **(Currently 1686 of 8419, 20.0%)**
- Target/prioritize to reduce number of posted bridges (school bus)